multitouch simulation input; a rotate display element input; a zoom display element input; a clock setting input; and a game user interface input.

[0021] The sound direction determiner may be configured to determine a first direction associated with a first sound source and determine a second direction associated with a second sound source, and wherein the user interface input generator may be configured to generate the user interface input based on the first direction and the second direction.

[0022] The sound direction determiner may be configured to determine a first direction associated with a first sound source over a first range of directions and determine a second direction associated with a second sound source over a second separate range of directions, and the user interface input generator may be configured to generate a simulated multi-touch user interface input based on the first and second directions.

[0023] The sound direction determiner may be configured to determine a first direction associated with a first sound source and determine a second direction associated with a second sound source subsequent to the first sound source, and the user interface input generator may be configured to generate a first of the user interface inputs based on the first direction, and a second of the user interface inputs based on the second direction and conditional on the first direction.

[0024] According to a second aspect there is provided an apparatus comprising at least one processor and at least one memory including computer code for one or more programs, the at least one memory and the computer code configured to with the at least one processor cause the apparatus to at least perform: receiving at least one detected acoustic signal from one or more sound sources; determining one or more directions associated with the one or more sound sources based on the detected at least one acoustic signal; and generating at least one user interface input based on the one or more directions, wherein the user interface input is configured to control the apparatus operation.

[0025] The apparatus may further perform displaying and/or receiving at least one information of at least one user interface for the apparatus operation.

[0026] The apparatus may further perform detecting at least one acoustic signal from the one or more sound sources.

[0027] Determining one or more directions associated with the one or more sound sources based on the detected at least one acoustic signal may cause the apparatus to perform determining the one or more directions associated with the one or more sound sources based on the detected at least one acoustic signal relative to the apparatus.

[0028] Receiving at least one detected acoustic signal from one or more sound sources configured to receive at least one detected acoustic signal may cause the apparatus to perform receiving at least a first audio signal input from a first microphone and at least a second audio signal input from a second microphone.

[0029] Determining one or more directions associated with the one or more sound sources based on the detected at least one acoustic signal may cause the apparatus to perform: identifying at least one common audio signal component within the at least one first audio signal and the at least one second audio signal; and determining a difference between the at least one common component such that the difference defines the one or more directions.

[0030] The apparatus may further be caused to perform determining at least one sound amplitude associated with the one or more sound sources; and generating at least one user interface input may cause the apparatus to perform generating at least one user interface input based on the one or more amplitude associated with the one or more sound sources, such that the one or more amplitude associated with the one or more sound sources is configured to control the apparatus operation.

[0031] The apparatus may further be caused to perform determining at least one sound motion associated with the one or more sound sources; and generating at least one user interface input may cause the apparatus to perform generating at least one user interface input based on the one or more sound motion associated with the one or more sound sources, such that the one or more motion associated with the one or more sound sources is configured to control the apparatus operation.

[0032] Determining one or more directions associated with the one or more sound sources based on the detected at least one acoustic signal may cause the apparatus to perform: determining at least one sound source direction at a first time; determining at least one sound source at a second time after the first time; and determining the difference between the at least one sound source direction at a first time and the at least one sound source at a second time.

[0033] The at least one sound source may comprise at least one of: an impact sound on a surface on which the apparatus is located; a contact sound on a surface on which the apparatus is located; a 'tap' sound on a surface on which the apparatus is located; and a 'dragging' sound on a surface on which the apparatus is located.

[0034] Generating at least one user interface input may cause the apparatus to perform: defining at least one region comprising a range of directions; and generating a user interface input based on the at least one direction associated with the one or more sound sources being within the at least one region.

[0035] Defining at least one region comprising a range of directions may cause the apparatus to perform defining at least two regions, each region comprising a range of directions, and the generating a user interface input based on the at least one direction associated with the one or more sound sources being within the at least one region may cause the apparatus to generate a first user interface input based on a first of the at least one direction being within a first of the at least two regions and generate a second user interface input based on the a second of the at least one direction being within a second of the at least two regions.

[0036] The at least two regions may comprise at least one of: the first region range of directions and second region range of directions at least partially overlapping; the first region range of directions and second region range of directions adjoining; and the first region range of directions and second region range of directions being separate.

[0037] The generating a user interface input may cause the apparatus to perform at least one of: generating a drum simulator input; generating a visual interface input; generating a scrolling input; generating a panning input; generating a focus selection input; generating a user interface button simulation input; generating a make call input; generating a end call input; generating a mute call input; generating a hands-free operation input; generating a volume control input; generating a media control input; generating a multitouch simulation input; generating a rotate display element input; generating a zoom display element input; generating a clock setting input; and generating a game user interface input.